

FIG. 1: Prior Art

```
< %@ page import="org.apache.jetspeed.modules.actions.portlets.JspPortletAction" %>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <input type="submit" name="eventSubmit_doUpdate" value="Submit">
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <INPUT TYPE="hidden" NAME="js_peid" VALUE="<%=jspeid%>">
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   String address = (String) request.getParameters.getAttribute("address");
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <FORM name="addressFrm" method="post" action="<jetspeed:dynamicUri/>">
<%@ taglib uri=/WEB-INF/templates/jsp/tld/template.tld' prefix='jetspeed' %>
                                                                                                                                                                                                                                                                                                                                                                                                                                            RunData rundata = (RunData) request.getAttribute("rundata");
                                                                                                                                                                                                                                                     <%@ page import="org.apache.jetspeed.util.PortletSessionState" %>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <textarea name="address"><%= address %></textarea>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      String jspeid = (String) request.getAttribute("js_peid");
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         final String userid = nmdata.getUser().getUserName();
                                                                                                                                                                                          <%@ page import="org.apache.jetspeed.portal.Portlet" %>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AppObjects.log("Error:error in jsppage",e);
                                                            <%@ page import = "org.apache.turbine.util. *" %>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            catch (Exception e) {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            retum;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <%tr>
```

FIG. 2: Prior Art

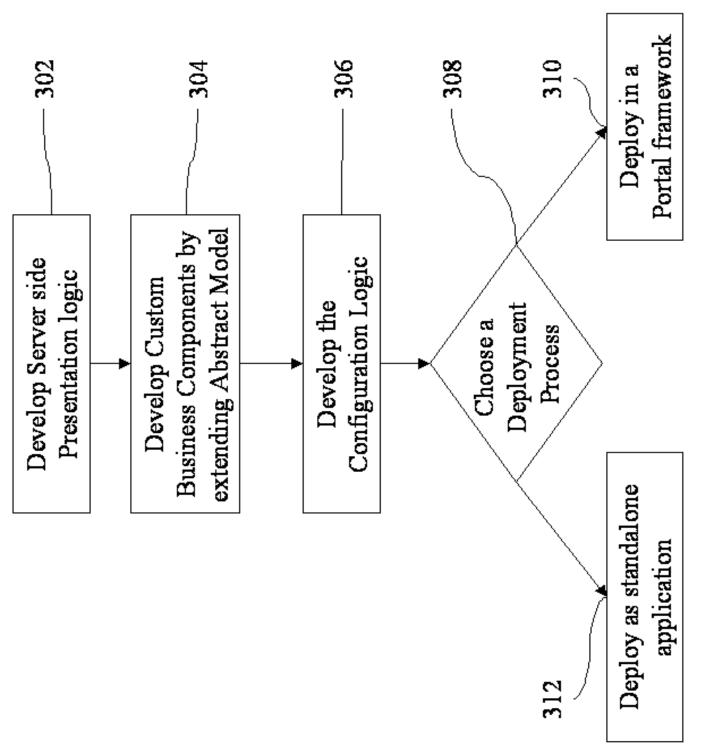


FIG. 3

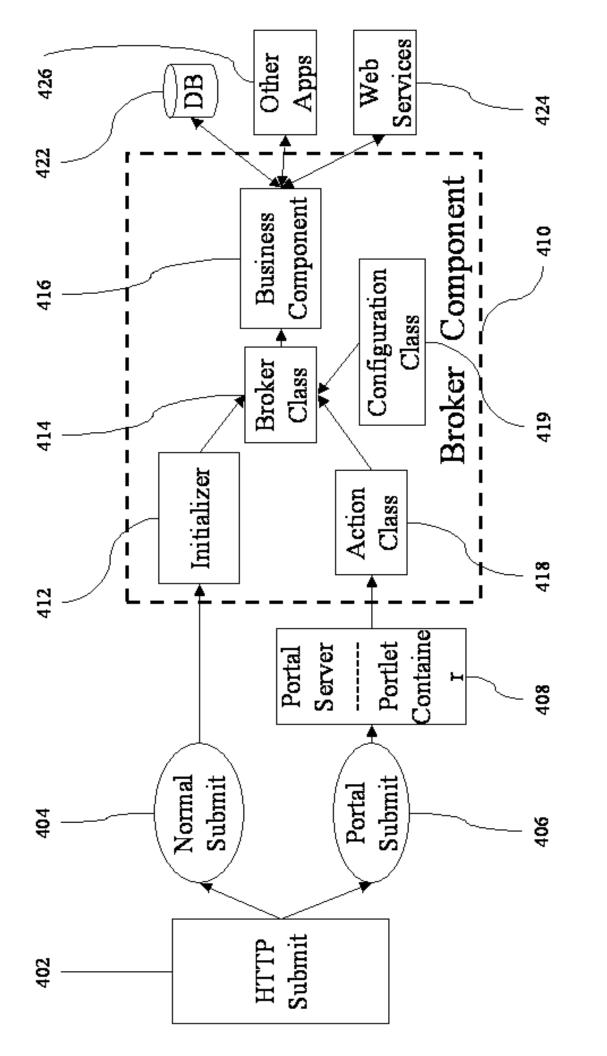
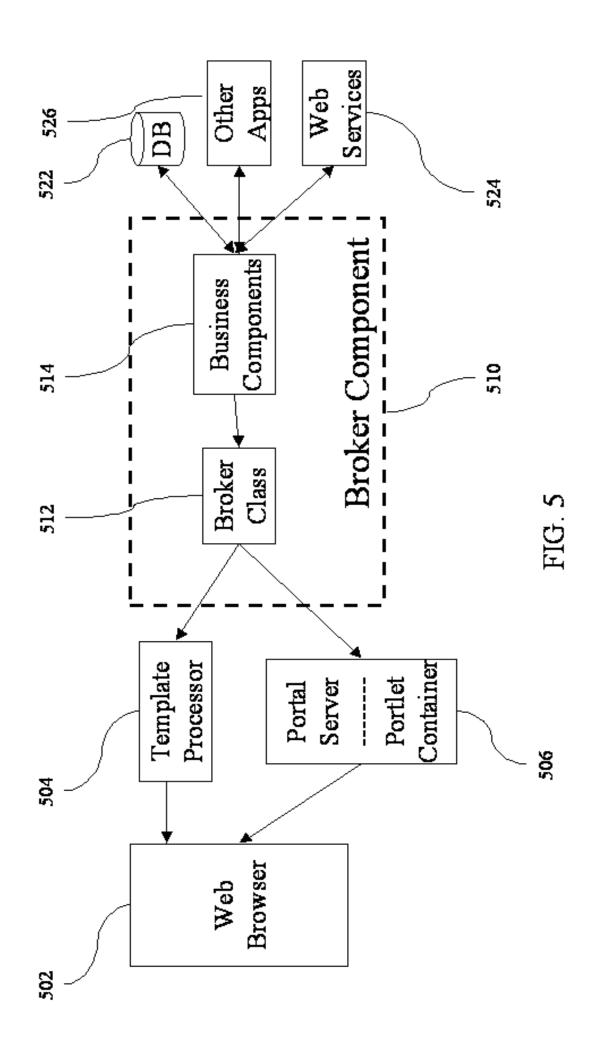
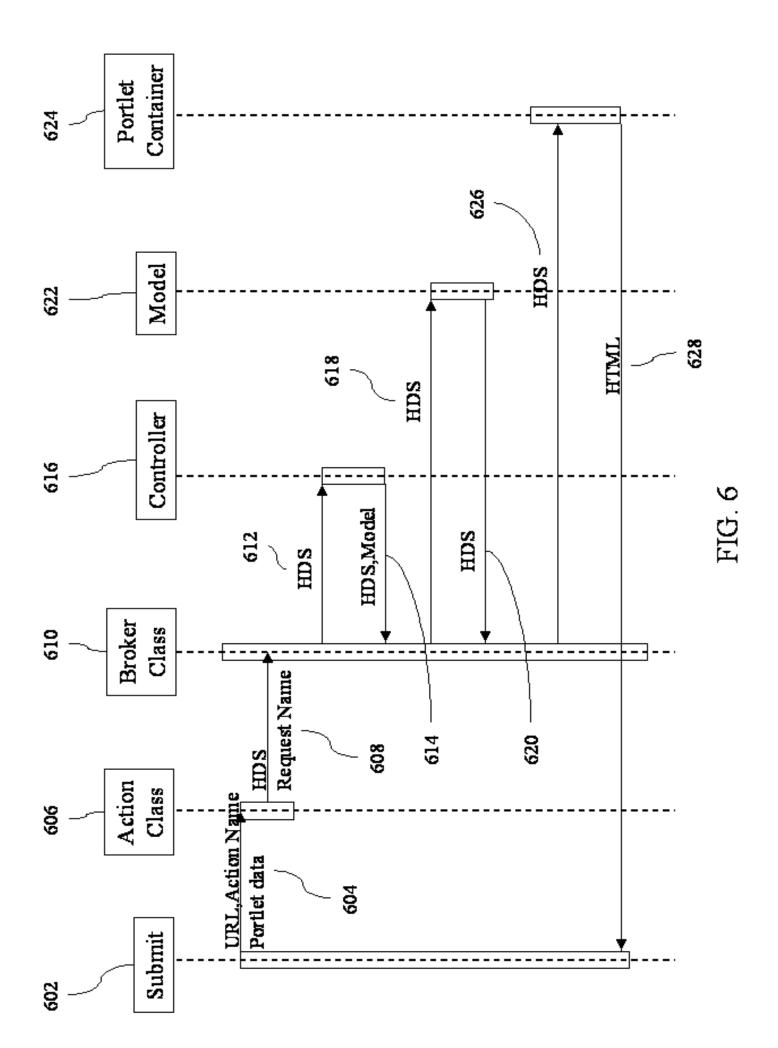
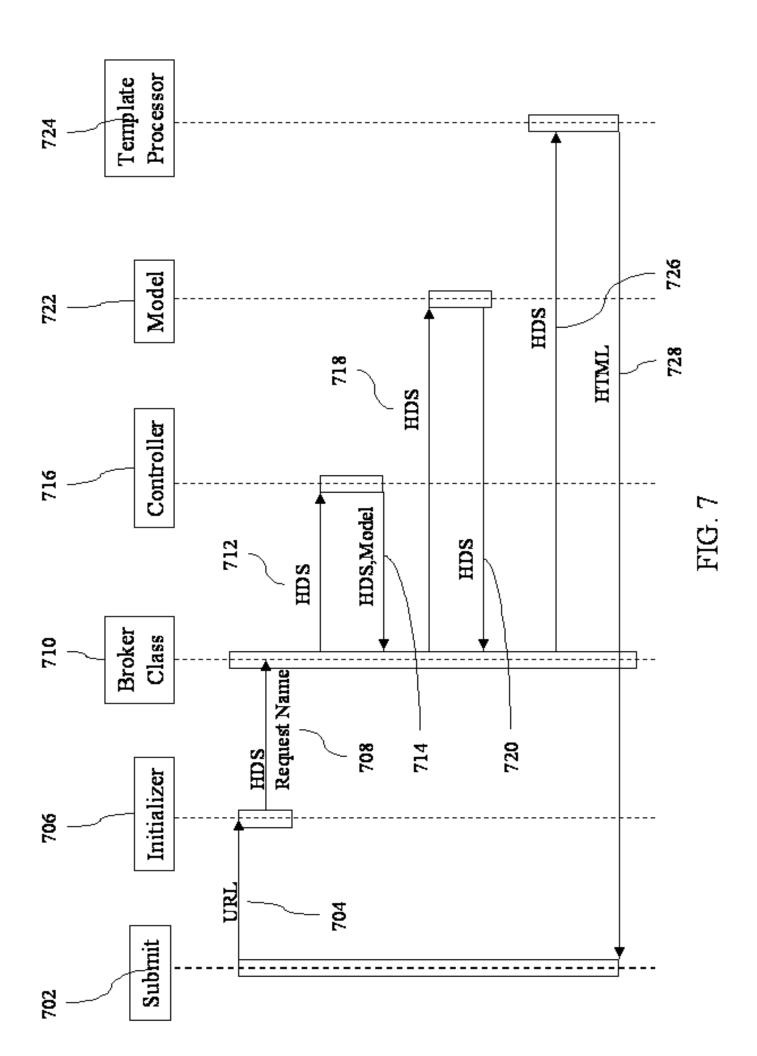


FIG. 4







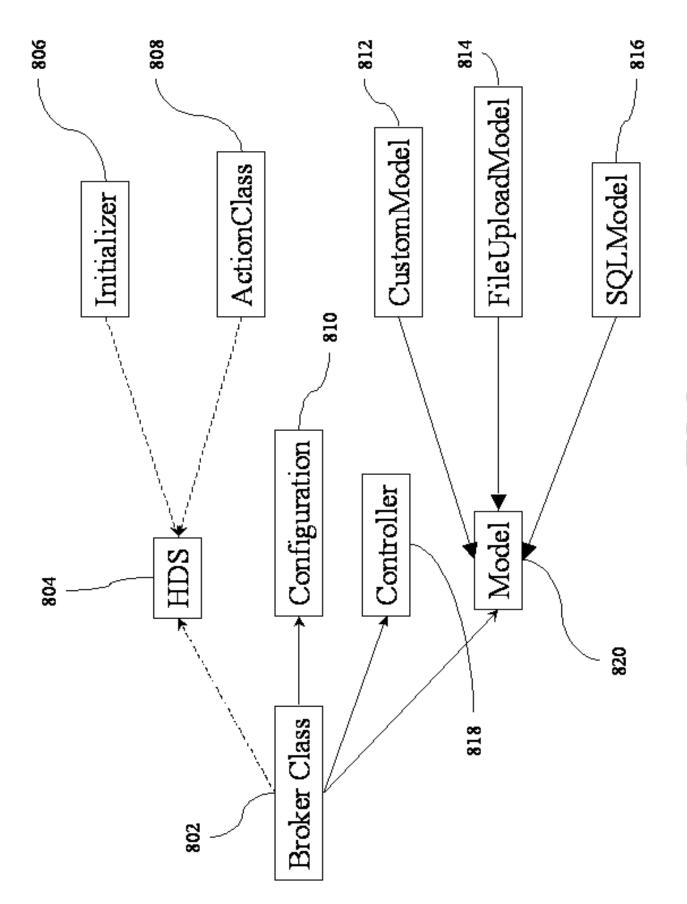


FIG. 8

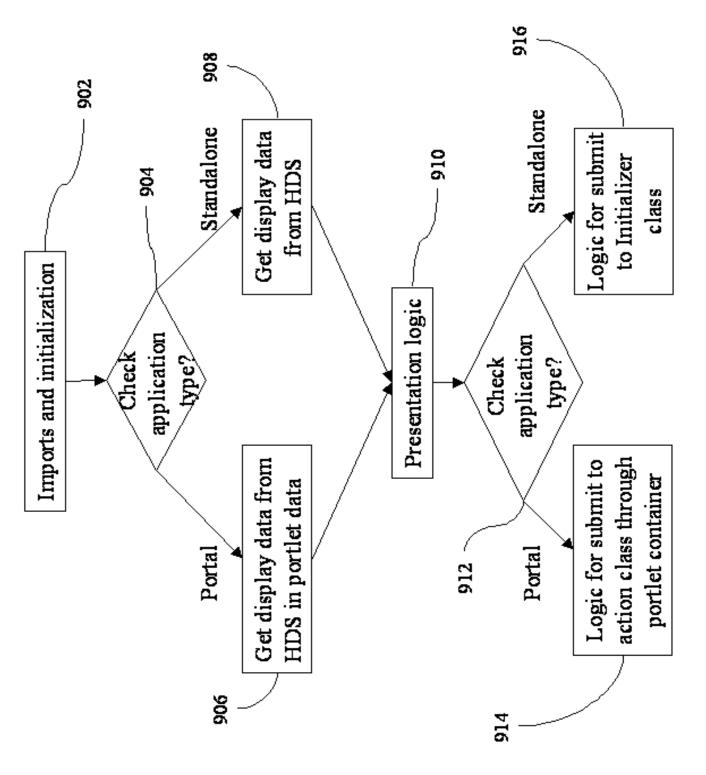


FIG. 9

```
ArrayList arrayActions = controller.getActionArray(requestName);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Registry.getHDS().setTemplate(Registry.getTemplate(template));
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       String template = controller.getTemplate(requestName);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Object model = controller.getModel(actionName);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    public void setTemplateProcessor(String template) {
                                                                                                                                                                                                                                                                                                                                                                                                                public void executeRequest (String requestName) {
                                                                                                                                                                                                                                                                         configuration =Registry.getConfiguration();
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   public void executeModel (String actionName) {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FIG. 10
                                                                                                                                                                                                                                                                                                                   controller = new Controller(configuration);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for(int i=0;i< arrayActions.length();i++) {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              executeModel(arrayActions [i]);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           setTemplateProcessor(template);
                                                                                                                                      Configuration configuration;
                                                                                          Controller controller;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             model.execute();
                                                                                                                                                                                                                            public Broker() {
                                          Model model;
Class Broker
```

```
Registry.getHDS().setParams(portlet.getPortletConfig().getInitParameters());
                                                                                                                                                                                                                                                           protected void buildNormalContext(Portlet portlet, RunData rundata) {
                                                                                                                                                                                                                                                                                                                                                                    Registry.getHDS().setParams(rundata.getParameters());
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Registry getBroker() executeRequest(request);
                                                                                                                                                                                                                                                                                                                                                                                                                           callBroker(Registry getHDS() getRequest());
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 public void callBroker(String request) {
                                                 String requestName=mull;
                                                                                                                                                       public ActionClass () {
Class ActionClass
```

FIG. 11

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1202
```

```
con = DriverManager.getConnection(hds.getDB(),hds.getUser(), hds.getPassword());
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               try { rs = stmt. executeQuery(Registry.getSQL(actionName));
                                                                                                                                                                                                                                                                                                                                                                                                                                               try{ Class.forName("hds.getDriver(");
                                                                                                                                                                                                                                       public class SQLModel extends Model {
                                                                                                                                                                                                                                                                                                                                                             public SQLModel(String action) {
                                                                                                                                                                                                                                                                                                                        public String actionName = \text{null};
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  stmt = con.createStatement();
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             finally {rs⊐null; con ⊐null;}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Registry.updateHDS(rs);
                                                                                                                                                                                                                                                                             public Connection con =null;
                                        abstract void execute() {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      } catch(Exception e) {}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    }catch(Exception e) {}
                                                                                                                                                                                                                                                                                                                                                                                                          actionName = action;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   public void execute() {
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ResultSet rs = null;
abstract class Model {
```